

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

RECEIVED

JUN 11 2001

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of:

Implementation of the Local Competition  
Provisions of the Telecommunications Act of 1996

CC Docket No. 96-98

Joint Petition of BellSouth, SBC, and Verizon  
for Elimination of Mandatory Unbundling of  
High-Capacity Loops and Dedicated Transport

DOCKET THE COPY ORIGINAL

COMMENTS OF CONVERSENT COMMUNICATIONS, LLC

Scott Sawyer  
Vice President of Regulatory Affairs  
Conversent Communications, LLC  
222 Richmond Street - Suite 301  
Providence, RI 02903  
[ssawyer@conversent.com](mailto:ssawyer@conversent.com)  
Voice: 401.490.6377  
Fax: 401.272.9751

Dated: June 11, 2001

No. of Copies rec'd 0+7  
List A B C D E

## TABLE OF CONTENTS

	Page
I. INTRODUCTION .....	2
II. THE AVAILABILITY OF UNBUNDLED DARK FIBER PROMOTES RAPID FACILITIES-BASED COMPETITION IN SECOND AND THIRD TIER MARKETS.....	4
III. AT THIS TIME, THERE ARE NO REASONABLE SUBSTITUTES FOR UNBUNDLED DARK FIBER .....	5
A. Neither Procuring Interoffice Fiber From Third Party Vendors Nor Installing It Through Self-Provisioning Constitutes A Reasonable Substitute For Unbundled Dark Fiber.....	7
IV. IF CONVERSENT COULD REPLICATE ITS EXISTING NETWORKS AND INSTALL ITS NEW NETWORKS BY RELYING ON THIRD PARTY VENDOR DARK FIBER, IT WOULD DO SO.....	9
V. CONCLUSION.....	10

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

In the Matter of:	)	
	)	
Implementation of the Local Competition	)	CC Docket No. 96-98
Provisions of the Telecommunications Act of 1996	)	
	)	
	)	
Joint Petition of BellSouth, SBC, and Verizon	)	
for Elimination of Mandatory Unbundling of	)	
High-Capacity Loops and Dedicated Transport	)	

**COMMENTS OF CONVERSENT COMMUNICATIONS, LLC**

Conversent Communications, LLC (“Conversent” or the “Company”), through its attorneys, hereby files these comments in response to the Joint Petition of BellSouth, SBC and Verizon for Elimination of Mandatory Unbundling of High Capacity Loops and Dedicated Transport (the “Joint Petition”).

As a small, privately held, recent start-up company, Conversent does not typically involve itself in FCC proceedings, not out of a lack of interest, but rather out of a lack of resources. Nevertheless, because of the critical importance of the availability of dark fiber as an unbundled network element (“UNE”) to Conversent’s business plan, Conversent is submitting these comments urging the Commission to reject the ILECs’ Petition to eliminate dark fiber from the list of UNEs that must be provided on a national basis.

Conversent currently provides local voice and data services to business customers in second and third tier urban markets in the Verizon-north service area. The average Conversent customer has approximately 5.5 lines, and many Conversent customers have only a single business line. Conversent has found that it can efficiently provide local voice service to these customers by relying on its own switches, collocated transmission equipment, unbundled local loops and dark fiber

interoffice transport. Although Conversent has only been in business since the fall of 1999, by December 31, 2000, it had already accumulated over 27,000 local business lines in Massachusetts, New Hampshire, Rhode Island and Maine, using the above described entry strategy. Moreover, Conversent's rate of growth has continued to accelerate in 2001, as it expands into second and third tier urban and suburban areas in three (3) new states: New York, New Jersey and Connecticut. Conversent anticipates that networks in these new states, utilizing unbundled dark fiber, will be completed later this year. This expansion into these three (3) new markets is directly related to the availability of unbundled dark fiber pursuant to the FCC's *UNE Remand Order*.<sup>1</sup>

## I. INTRODUCTION

In the *UNE Remand Order*, the FCC ruled that the lack of access to unbundled dark fiber loops and unbundled interoffice transport (including dark fiber interoffice transport) would impair a carrier's ability to provide the services it seeks to offer.<sup>2</sup> The FCC indicated that it intended to review the list of UNEs that ILECs must provide in three (3) years.<sup>3</sup> The FCC also recognized that market entrants need stability and that premature review would have a destabilizing effect on the business plans of market entrants and their ability to attract financing.<sup>4</sup>

Unfortunately, only one (1) year following the effective date of the FCC's decision to require ILECs to unbundle dark fiber and only a matter of months after Conversent was able to obtain UNE Remand Amendments to its interconnection agreements that allow it to actually order unbundled dark fiber, the ILECs are seeking to remove unbundled dark fiber from their unbundling obligations. As a result, Conversent has been forced to expend the time and resources to demonstrate, again, that requiring it to self-provision or to obtain dark fiber from third party vendors would (i) materially

---

<sup>1</sup> *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, Third Report and Order and Fourth Notice of Proposed Rulemaking, 15 FCC Rcd 3696 (rel. Nov. 5, 1999) ("*UNE Remand Order*").

<sup>2</sup> *Id.* at ¶¶ 181, 196, 332, 333, 340, 349, 350, 355, 361.

<sup>3</sup> *Id.* at ¶ 130.

<sup>4</sup> *Id.* at ¶¶ 114, 150, 151, 158, 366.

increase its cost of market entry; (ii) materially diminish the service quality it can provide to its customers; (iii) materially delay its market entry; and (iv) require it to scale down the size of its networks because of the lack of ubiquitous interoffice transport facilities between ILEC central offices.

Conversent has already installed SONET ring networks in Massachusetts, New Hampshire, Rhode Island and Maine by using access to unbundled dark fiber interoffice facilities (“unbundled dark fiber IOF”) from Verizon. Specifically, Conversent entered these states by purchasing and installing switches, aggressively collocating in a large number of Verizon central offices (so that it can order unbundled loops), connecting such central offices by leasing unbundled dark fiber IOF and energizing such unbundled dark fiber IOF with Conversent electronics. The reason that Conversent was able to install these networks so quickly is that, as a result of state commission decisions, Conversent was able to gain access to dark fiber in these states before the *UNE Remand Order*. By allowing such access to Verizon’s unbundled dark fiber under reasonable terms and conditions, state commissions lowered the entry barriers to facilities-based entry, especially those associated with entry in smaller sized cities and surrounding suburban areas that had not yet seen the benefits of facilities-based competition.

The *UNE Remand Order* was extremely helpful to Conversent because it appeared to provide much needed certainty to Conversent’s business plan. This is because Verizon had appealed a New Hampshire PUC ruling that dark fiber is a UNE, had threatened to appeal a Massachusetts decision, and did not appear to recognize a Rhode Island Arbitration Order affirming an arbitrator’s finding that dark fiber is a UNE (even though Verizon never contested the arbitrator’s finding at the PUC hearing).

The *UNE Remand Order* was also very helpful because it allowed Conversent to enter into new markets using unbundled dark fiber. Conversent relied on the *UNE Remand Order* to enter New

Jersey, New York, and Connecticut and has ordered a considerable number of spans of unbundled dark fiber IOF in these states.

Unfortunately, the Joint Petition has cast a cloud over Conversent's business plan, which relies on dark fiber as a critical component of its entry strategy. Conversent believes that this is not what the FCC intended when it included dark fiber on the list of UNEs that ILECs must provide nationally. The FCC must reject the Joint Petition and confirm that dark fiber will remain a UNE for at least three (3) more years.

## **II. THE AVAILABILITY OF UNBUNDLED DARK FIBER PROMOTES RAPID FACILITIES-BASED COMPETITION IN SECOND AND THIRD TIER MARKETS**

In many second and third tier markets true facilities-based competition did not initially develop after passage of the Telecommunications Act of 1996. The main reason for this was the high cost of obtaining lit interoffice transport (either from the ILEC or through self-provisioning). The availability of dark fiber has now made efficient facilities-based entry in second and third tier markets possible.

In Massachusetts, for example, Conversent has collocated in 54 Verizon central offices that are located primarily in small cities and suburban areas throughout the state. Ideally, Conversent would have been able connect each of its 54 collocation arrangements by obtaining unbundled dark fiber IOF and energizing it with Conversent electronics. Unfortunately, unbundled dark fiber IOF was not available from Verizon (or from other sources for that matter) in 11 of Conversent's 54 collocation arrangements. Conversent was forced to purchase lit interoffice fiber to connect those 11 collocation arrangements. Nevertheless, Conversent was able to connect the other 43 of its Massachusetts collocation arrangements using unbundled dark fiber IOF. As a result, it has

completed a 41 node, 562-mile SONET ring network in eastern Massachusetts and a 2 node, 9-mile ring in the western part of the state.<sup>5</sup>

As can be seen from this example, the availability of unbundled dark fiber has allowed Conversent to install and turn up networks that cover a far more ubiquitous geographic area than if such access were denied. Without access to unbundled dark fiber, Conversent would not have been able to deploy its Massachusetts networks in the geographic areas it chose to enter.<sup>6</sup>

### **III. AT THIS TIME, THERE ARE NO REASONABLE SUBSTITUTES FOR UNBUNDLED DARK FIBER**

Conversent's transport costs in Massachusetts illustrate why lit fiber is not a substitute for dark fiber IOF. Conversent's transport costs for using unbundled IOF for its SONET rings amount to approximately \$939,996.00 per year.<sup>7</sup> As described in the Affidavit of David A. Graham, if Conversent were forced to attempt to replicate its Massachusetts SONET rings by relying on Verizon's lit OC-48 transport offering, it would result in an annual recurring charge of \$13,849,728.72.<sup>8</sup> This increase in transport costs would prevent efficient entry in the second and third tier markets in which Conversent operates in Massachusetts.

Not only would it be prohibitively expensive for Conversent to replicate its existing networks using ILEC lit transport, it would also result in a material decrease in Conversent's service quality.<sup>9</sup> To understand why, one must understand that access to Verizon's unbundled dark fiber provides Conversent with important service quality advantages. This is because as Verizon delivers unbundled dark fiber between Conversent's collocation arrangements, Conversent purchases and

---

<sup>5</sup> *Graham Affidavit at ¶ 11.*

<sup>6</sup> *Id.* at ¶ 11.

<sup>7</sup> *Id.* at ¶ 17.

<sup>8</sup> *Id.* at ¶ 18.

<sup>9</sup> *Id.* at ¶ 25.

installs its own multiplexers to complete its SONET ring. Importantly, this network design provides Conversent with complete control of its network for provisioning, surveillance and repair.<sup>10</sup>

A limitation on Verizon's lit OC-48 transport is that it is offered on a point-to-point basis only. This would further increase Conversent's costs and would result in a material decrease in service quality because it would require the introduction of three (3) multiplexers at each collocation cage instead of the single MUX that is required if Conversent is allowed to continue to use unbundled dark fiber.<sup>11</sup>

Using Conversent's 43 node, 571-mile SONET rings in Massachusetts as an example, Verizon would install a total of 86 unnecessary MUXs and introduce 86 additional points of potential failure in Conversent's network that would not exist in the rings that we have built with dark fiber.<sup>12</sup>

If unbundled dark fiber IOF were no longer available in Massachusetts, New Hampshire, Rhode Island and Maine, and Conversent were required to lease lit, dedicated transport from Verizon, Conversent's control and management of its interconnect links would be totally dependant upon Verizon identification, diagnosis and repair of Verizon's fiber and multiplexing equipment.<sup>13</sup> Conversent's surveillance operation would be able to manage Conversent's multiplexer equipment, but it would have no management capability for Verizon's multiplexers or transport.<sup>14</sup> In contrast, as a result of the availability of unbundled dark fiber IOF, Conversent is currently able to maintain total control of its ring architecture and its overall service quality.<sup>15</sup>

---

<sup>10</sup> *Id.* at ¶ 24.

<sup>11</sup> *Id.* at ¶ 20.

<sup>12</sup> *Id.* at ¶ 22.

<sup>13</sup> *Id.* at ¶ 23.

<sup>14</sup> *Id.*

<sup>15</sup> *Id.* at ¶ 24.



**A. Neither Procuring Interoffice Fiber From Third Party Vendors Nor Installing It Through Self-Provisioning Constitutes A Reasonable Substitute For Unbundled Dark Fiber**

A theoretical alternative to obtaining unbundled dark fiber from ILECs is attempting to procure dark or lit fiber from non-ILEC sources. Third party vendors for fiber such as NEON, NEES, CTC, or other CLECs do exist in the northeast, but at this point in time, they do not offer a readily available, inter-changeable, ubiquitous substitute for unbundled dark fiber IOF.<sup>16</sup>

The major problem with third party vendors is that they do not offer dark or lit fiber on a ubiquitous basis. Conversent's experience is at this stage in the market, *such vendors do not have fiber ubiquitously available in the locations where Conversent needs it - between ILEC central offices.*<sup>17</sup>

To illustrate that dark fiber IOF from third party vendors is not available between most ILEC central offices, in Massachusetts access to dark fiber IOF from third party vendors is only available for seven (7) of Conversent's 59 interoffice spans (4 of these spans are in Boston). In Rhode Island, access to dark fiber IOF from third party vendors is only available for two (2) of Conversent's eleven (11) interoffice spans. In Maine, access to dark fiber from third party vendors is not available for any of Conversent's four (4) interoffice spans. In New Hampshire, where Conversent is collocated in eight (8) Verizon central offices, third party vendor fiber is only available for two (2) of these eight (8) spans. Accordingly, if Conversent were required to rely on third party vendors, it could not replicate its existing networks and would have to drastically reduce their size.

With respect to self-provisioning, Conversent can and does procure and install dark fiber for use in its network. However, the process is time consuming and expensive. Obtaining permits, performing excavation work and securing necessary access to rights of way, pole attachments and

---

<sup>16</sup> *Id.* at ¶ 27.

<sup>17</sup> *Id.* at ¶ 28.

conduit space is a very lengthy and often protracted process. For example, it took Conversent nine (9) months just to gain access to Verizon conduit space in order to be able to pull cable 11,000 feet from Verizon's switch to Conversent's switch in Worcester, Massachusetts.<sup>18</sup>

Based on actual quotes from make-ready work from Verizon and from estimates from third party contractors, Conversent's costs to install its own fiber in Verizon conduit is approximately \$49,843.00 per mile in Massachusetts.<sup>19</sup> Accordingly, if Conversent were required to replicate its 571-mile Massachusetts networks by installing its own fiber in Verizon conduit it would cost Conversent approximately \$28 million.<sup>20</sup> Of course this assumes that Verizon conduit is available. If it were not, and Conversent were required to replicate its Massachusetts network by installing its own conduit and fiber it would cost Conversent approximately \$76 million.<sup>21</sup> Although the networks Conversent has installed in New Hampshire, Rhode Island and Maine are somewhat smaller than in Massachusetts, the conclusion is essentially the same. It would be cost prohibitive for Conversent to replicate its networks by provisioning interoffice transport.

Conversent anticipates completing its SONET rings in Connecticut, New York and New Jersey by the end of this year. If unbundled dark fiber were not available in these states and Conversent were required to install its own fiber as interoffice transport, Conversent's plans to provide service would not only be substantially delayed, its plans would be substantially downsized.

---

<sup>18</sup> *Id.* at ¶ 32.

<sup>19</sup> *Id.* at ¶ 33.

<sup>20</sup> *Id.* at ¶ 33.

<sup>21</sup> *Id.* at ¶ 34.

#### **IV. IF CONVERSENT COULD REPLICATE ITS EXISTING NETWORKS AND INSTALL ITS NEW NETWORKS BY RELYING ON THIRD PARTY VENDOR DARK FIBER, IT WOULD DO SO.**

It would be an understatement to say that Verizon does not make it easy for CLECs to order and use unbundled dark fiber. Unfortunately, Verizon has undertaken a number of actions to delay, degrade, and most recently to destabilize Converseant's ability to use unbundled dark fiber.<sup>22</sup> With respect to delay, Verizon does very little to help CLECs order unbundled dark fiber IOF. For example, Verizon requires CLECs to order unbundled dark fiber IOF on a point-to-point basis, but refuses to assist them in identifying where such dark fiber IOF is routed.<sup>23</sup> This essentially requires Converseant to play a game of fish with Verizon. If Converseant does not guess correctly about where the fish is located it must go back to the deck, draw another card, and guess again. It would be much more efficient for all concerned, if Verizon, at the outset, would provide Converseant with maps that show the way dark fiber is routed across Verizon's wire centers.

Relatedly, in most states, Verizon does not provide CLECs with access to dark fiber that runs through intermediate central offices, even though it does so for CLECs that order lit fiber. To illustrate, if Converseant orders unbundled dark fiber from central office A to central office B (point-to-point) but, unbeknownst to Converseant, such fiber runs through an intermediate central office C, where Converseant is not collocated, Verizon will respond that no dark fiber is available. The effect of this limitation, of course, is to decrease the availability of dark fiber to Converseant, and correspondingly, to delay its ability to serve customers in that market.<sup>24</sup> With respect to the degradation of Converseant's service, Verizon refuses to provide CLECs with dark fiber that meets its own internal standard for transmission quality.<sup>25</sup> In contrast, third party vendors do provide fiber, where it is available, that has minimum transmission standards.

---

<sup>22</sup> *Id.* at ¶ 37.

<sup>23</sup> *Id.*

<sup>24</sup> *Id.* at ¶ 38.

<sup>25</sup> *Id.* at ¶ 39.

The very filing of the Joint Petition destabilizes Conversent's operations and creates uncertainty about its business plan. At the very time that Conversent is attempting to rely on the FCC's *UNE Remand Order* in order to expand its customer base in its core footprint and to expand its operations into three (3) new states, Verizon and the other petitioners are trying to force Conversent to disassemble its recently installed SONET networks.

The fact of the matter is, if Conversent did not have to purchase unbundled dark fiber from the ILECs, it would not. If there were a competitive market for dark fiber interoffice transport, Conversent would be much better served by procuring it from a vendor that really wanted its business instead of from a competitor who wants to put it out of business.

#### **V. CONCLUSION**

For the above reasons, Conversent urges the Commission to reject the Joint Petition and confirm that dark fiber will remain a UNE for at least three (3) more years.

Respectfully Submitted,

  
\_\_\_\_\_  
Scott Sawyer  
Vice President of Regulatory Affairs  
Conversent Communications, LLC  
222 Richmond Street - Suite 301  
Providence, RI 02903  
[ssawyer@conversent.com](mailto:ssawyer@conversent.com)  
Voice: 401.490.6377  
Fax: 401.272.9751

Dated: June 11, 2001

**AFFIDAVIT OF DAVID A. GRAHAM  
ON BEHALF OF  
CONVERSENT COMMUNICATIONS, LLC**

David A. Graham, being duly sworn, deposes and states as follows:

**I. INTRODUCTION**

1. My name is David A. Graham. I am the Senior Vice President of Engineering for Conversent Communications, LLC ("Conversent" or the "Company"), formerly known as New England Voice & Data, LLC.
2. As Senior Vice President of Engineering, my primary responsibilities are the design, engineering, installation and turn-up of the Company's outside network, including transport, collocation, and the delivery of services.
3. I have over 33 years of experience in the design, planning, engineering, installation, surveillance and restoration of telecommunications networks. I began my career as an employee of New England Telephone Company in 1968 in its New Hampshire Outside Plant Engineering Department and held numerous technical and engineering management positions with New England Telephone, NYNEX and NYNEX Corporate prior to my retirement in April 1997. My more significant responsibilities while employed by NYNEX were the management and administration of a \$50 million annual capital construction program for expansion and modernization of NYNEX's telecommunications infrastructure for the state of Rhode Island. This responsibility included not only the identification, funding and scheduling, but also the engineering and construction of cable, loop electronics, poles, frame, conduit and surveillance equipment to ensure overall service continuity in a cost effective manner. Since leaving NYNEX, I have worked for CLECs on engineering and operations matters.
4. Conversent currently provides local voice and data services to business customers in second and third tier urban and suburban markets. The average Conversent customer has approximately 5.5 lines, and many Conversent customers have only a single business line.
5. Conversent has found that it can efficiently provide local service to small businesses in second and third tier markets by relying on its own switches and collocated transmission equipment and by leasing collocation space, unbundled loops, and unbundled dark fiber interoffice transport ("unbundled dark fiber IOF") from Verizon.
6. Although Conversent has only been in business since the fall of 1999, by December 31, 2000, it had already accumulated over 27,000 local business lines in Massachusetts, New Hampshire, Rhode Island and Maine, using the above described entry strategy.<sup>1</sup>

---

<sup>1</sup> Although Conversent targets its sales efforts to small businesses in second and third tier markets, Conversent's Massachusetts network does go through parts of Boston.

7. Moreover, Conversent's rate of growth has continued to accelerate in 2001 as it expands into second and third tier urban and suburban areas in three (3) new states: New York, New Jersey and Connecticut. Conversent's expansion into these three states is directly related to the availability of unbundled dark fiber pursuant to the FCC's *UNE Remand Order*. Conversent anticipates that networks in these new states, utilizing unbundled dark fiber, will be completed later this year.

## **II. THE AVAILABILITY OF UNBUNDLED DARK FIBER PROMOTES RAPID FACILITIES-BASED COMPETITION**

8. In many second and third tier markets, true facilities-based competition did not initially develop after passage of the Telecommunications Act of 1996. The main reason for this was the high cost of obtaining lit interoffice transport (either from the ILEC or through self-provisioning). The availability of dark fiber has now made efficient facilities-based entry in second and third tier markets possible.
9. Conversent first began entering local markets in states such as Massachusetts, New Hampshire, Rhode Island and Maine as a result of state commission decisions that had mandated the availability of unbundled dark fiber prior to the *UNE Remand Order*. In the early stages of its development, however, Conversent's business plan was very much at risk. This is because it was far from clear that the pre-*UNE Remand Order* state dark fiber decisions would be sustained on appeal or enforceable.
10. The *UNE Remand Order* reduced the level of regulatory uncertainty surrounding Conversent's use of unbundled dark fiber in Massachusetts, New Hampshire, Rhode Island and Maine. The *UNE Remand Order* also enabled Conversent to begin to expand into New York, New Jersey and Connecticut, where unbundled dark fiber previously had not been available.
11. Conversent's experience in Massachusetts illustrates how the availability of dark fiber has allowed Conversent to quickly and efficiently deploy its network. In Massachusetts, Conversent has collocated in 54 Verizon central offices. Conversent would have preferred to connect each of its 54 collocation arrangements by obtaining unbundled dark fiber IOF and energizing it with Conversent electronics. Unfortunately, unbundled dark fiber IOF was not available from Verizon (or from other sources for that matter) in 11 of Conversent's 54 collocation arrangements. Conversent was forced to purchase lit interoffice fiber to connect those 11 collocations arrangements. However, Conversent was able to connect the other 43 Massachusetts collocation arrangements using unbundled dark fiber IOF. As a result, it has completed a 41 node, 562-mile SONET ring network in eastern Massachusetts and a 2 node, 9-mile ring in the western part of Massachusetts. Conversent has also relied on unbundled dark fiber loop facilities in Massachusetts. If dark fiber facilities had not been available, Conversent would not have been able to deploy its Massachusetts network in the geographic areas it chose to enter.
12. Unfortunately, only one (1) year following the effective date of the FCC's decision to require ILECs to unbundle dark fiber, and only ten (10) months after Conversent was able to obtain UNE Remand Amendments to its Interconnection Agreements that allowed it to actually order unbundled dark fiber, the ILECs are seeking to remove unbundled dark fiber from their

unbundling obligations. The very existence of the Joint Petition has cast uncertainty on Conversent's business plan.

### **III. THERE ARE NO SUBSTITUTES FOR DARK FIBER LOOPS**

13. There are no substitutes for unbundled dark fiber loops. Just like conventional 2-wire and 4-wire copper loops, fiber optic loops are bottleneck facilities that tend to hold the end-user hostage to the ILEC until and unless they are unbundled as a UNE. If CLECs are required to build out loops to reach end user customers, there will be no widespread competition, especially for residential and small business customers.
14. If unbundled dark fiber loops were not available to Conversent, the Company's ability to offer state-of-the-art products and services such as Rate Adaptive Digital Subscriber Line ("RADSL") (High Speed Bandwidth to the premise) would be limited to a physical distance of approximately 2 miles ( $\pm 12,000$ ) of non-loaded copper from the central office.
15. Access to unbundled dark fiber in the feeder/distribution network allows Conversent to extend this service offering to subscribers throughout the exchange by placing Conversent equipment at the end of the fiber lead, thereby maximizing customer coverage while minimizing the length of the copper extension and meeting the 2 mile threshold. Accordingly, keeping unbundled dark fiber loops available on a national basis will promote the development of advanced telecommunications services.

### **IV. ILEC INTER-OFFICE LIT TRANSPORT IS NOT A REASONABLE SUBSTITUTE FOR INTER-OFFICE DARK FIBER**

#### **A. Relying on ILEC Inter-Office Lit Transport Would Prohibitively Increase Conversent's Costs**

16. If Conversent were required to purchase ILEC lit inter-office transport in place of unbundled dark fiber, it would prohibitively increase the cost of Conversent's existing and planned networks.
17. Conversent's transport costs in Massachusetts illustrate why lit fiber is not a substitute for inter-office ("IOF") dark fiber. Conversent's transport costs for using unbundled dark fiber IOF for its eastern Massachusetts ring include a recurring monthly charge of \$77,094.00 (monthly fixed charge of \$15.45 per fiber pair x 2 wire centers x 58 spans x 2 + monthly mileage charge of \$65.40 per fiber pair per mile x 1,124 miles). This amounts to a total annual recurring charge of \$925,128.00. Conversent's transport cost for using unbundled dark fiber to complete its western ring includes a recurring monthly charge of \$1,239.00 (monthly fixed charge of \$15.45 per fiber pair x 2 wire centers x 1 fiber span x 2 + monthly mileage charge of \$65.40 per fiber pair, per mile x 18 miles). This amounts to a total annual recurring charge of \$14,868.00. Thus, the current, combined annual recurring charge to Conversent for its fiber rings in Massachusetts using dark fiber IOF amounts to approximately \$939,996.00 per year.
18. If Conversent were forced to attempt to replicate the above-described 43 node, 571 mile Massachusetts networks by relying on VZ's lit, dedicated OC 48 transport offering, it's

transport costs would increase enormously. For example, VZ's charges for OC-48 transport (assuming it were still available as a UNE) in the Commonwealth of Massachusetts includes a fixed charge of \$11,531.11 per node and a per mile charge of \$386.83. Thus, *for Conversent to complete its 43 node, 571 mile SONET ring networks in Massachusetts by leasing VZ's OC-48 transport, it would cost a staggering \$13,849,728.72 annually. This is approximately 14 times more expensive than leasing unbundled dark fiber IOF.* This increase in transport costs would prevent efficient entry in the second and third tier markets in which Conversent operates in Massachusetts.

19. Although Conversent's Massachusetts network is larger than its networks in other states, a similar magnitude of increased expense would apply with respect to Conversent's existing SONET ring networks in New Hampshire, Rhode Island and Maine, as well as the networks that Conversent is installing in New York, New Jersey and Connecticut.
20. Finally, an important limitation on VZ's lit OC-48 transport is that it is offered on a point-to-point basis only. This limitation means that reliance on lit transport would further increase Conversent's costs because it would require the introduction of three multiplexers ("MUXES") at each collocation cage instead of the single MUX that is required if Conversent is allowed to continue to use unbundled dark fiber.

**B. Relying on ILEC Lit Inter-Office Transport Would Result in a Material Decrease in Conversent's Service Quality**

21. It would simply not be possible for Conversent to use VZ's lit transport for its SONET ring networks in a manner that would allow Conversent to provide a level of service that is at parity with VZ. Most importantly, establishing ring topography using lit OC-48 transport from VZ would require the provision of a terminating MUX to deliver the incoming link to Conversent and the provision of a second MUX to accept the outgoing link from Conversent for transport to the next node. In this configuration, a Conversent MUX must be placed between the two VZ MUXs for interconnection to complete the hand off at each node.
22. *Using Conversent's 43 node, 571 mile SONET rings in Massachusetts as an example, VZ would install a total of 86 unnecessary MUXs and introduce 86 additional points of potential failure in Conversent's network that would not exist in rings built with dark fiber.*
23. Furthermore, if unbundled dark fiber IOF were no longer available in Massachusetts, New Hampshire, Rhode Island and Maine and Conversent were required to lease lit, dedicated unbundled inter-office transport from VZ, Conversent's control and management of its interconnection links would be totally dependent upon VZ for the identification, diagnosis and repair of troubles on VZ's fiber and multiplexing equipment. Conversent's surveillance operations would be able to manage Conversent's multiplexer equipment, but it would have no management capability for VZ's multiplexers or transport.
24. In contrast, with the availability of unbundled dark fiber IOF, Conversent is currently able to establish and maintain total control of its ring architecture and its overall service quality.



25. If Conversent were required to lease VZ's OC-48 offering in place of unbundled dark fiber IOF, it would result in a prohibitive increase and a material decrease in the service quality that it is able to provide to end user customers.
26. Of course, if the Joint Petition were granted, *all* ILEC-provided interoffice transport, lit and dark, would be removed as a UNE and, therefore, even this alternative to unbundled dark fiber IOF would not be available.

**V. NEITHER PROCURING INTER-OFFICE FIBER FROM THIRD PARTY VENDORS NOR INSTALLING IT THROUGH SELF-PROVISIONING CONSTITUTES A REASONABLE SUBSTITUTE FOR UNBUNDLED DARK FIBER**

27. A theoretical alternative to obtaining unbundled dark fiber from ILECs is attempting to procure dark or lit fiber from non-ILEC sources. Third party vendors for fiber such as Neon, NEES, C2C, or other CLECs (most CLECs are not interested in leasing fiber to their competitors), do exist in the Northeast, but at this point in time they do not offer a readily available, interchangeable, ubiquitous substitute for unbundled dark fiber IOF. Moreover, self-provisioning is simply not an efficient means of entry on a widespread basis in the markets in which Conversent competes.

**A. Dark Fiber IOF is Not Ubiquitously Available from Third Party Vendors**

28. The major problem with third party vendors is that they do not offer dark or lit fiber on a ubiquitous basis. Conversent's experience is that at this stage in the market, *such vendors do not have fiber ubiquitously available in locations where Conversent needs it - between ILEC central offices or between ILEC central offices and end users.*
29. For example, in Massachusetts dark fiber IOF from third party vendors is only available for 7 of Conversent's 59 interoffice spans (4 of these spans are in Boston). In Rhode Island, dark fiber IOF from third party vendors is only available for 2 of Conversent's 11 interoffice spans. In Maine, dark fiber from third party vendors is not available for any of Conversent's 4 interoffice spans. In New Hampshire, where Conversent is collocated in eight (8) Verizon central offices, third party vendor fiber is only available for 2 of these 8 spans.
30. Accordingly, if Conversent were required to rely on third party vendors, it would have to drastically reduce the size and increase the cost of its networks.

**B. Self-Provisioning is Prohibitively Expensive and Would Require Conversent to Substantially Curtail its Existing Networks and its Plans to Expand**

31. Conversent can and does self-provision dark fiber for use in its networks where alternatives are unavailable. However, the process is time consuming and expensive. Obtaining permits, performing excavation work, and securing necessary access to rights-of-way, pole attachments, and conduit space is a very lengthy and often protracted process.
32. As an example, it took Conversent nine months just to gain access to VZ conduit space in order to be able to pull cable 11,000 feet from VZ's switch to Conversent's switch in Worcester, Massachusetts.

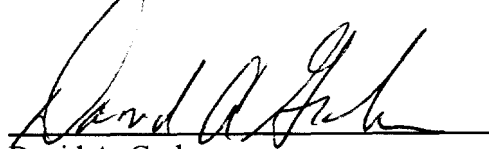
33. Based on actual quotes for make-ready work from VZ and from estimates from third party contractors, Conversent's cost to install its own fiber in VZ conduit is approximately \$49,843.00 per mile in Massachusetts. Accordingly, if Conversent were required to replicate its 571-mile Massachusetts networks by installing its own fiber in VZ conduit it would cost Conversent approximately \$28 million. Conversent cannot compete efficiently in the markets in which it operates if it must incur transport costs of this magnitude.
34. Further, based on estimates from third party contractors, Conversent's cost to install its own underground fiber where conduit is not available is approximately \$485,812.80 per mile in Massachusetts. Based on estimates from third party contractors, Conversent's cost to install its own aerial fiber on leased poles on existing pole lines is approximately \$44,915.40 per mile. On average, approximately 20% of sections would require underground construction and approximately 80% of the section could use aerial construction. Based on these assumptions, the cost to replicate the 571-mile Massachusetts network would be approximately \$76 million.
35. Although the networks Conversent has installed in New Hampshire, Rhode Island and Maine are somewhat smaller than in Massachusetts, the conclusion is essentially the same. It would be cost prohibitive for Conversent to replicate its networks by provisioning interoffice transport.
36. Conversent anticipates completing its SONET rings in Connecticut, New York and New Jersey by the end of this year. If unbundled dark fiber were not available in these states and Conversent were required to install its own fiber as interoffice transport, Conversent's plans to provide service would not only be substantially delayed, its plans would be substantially downsized.

**VI. IF CONVERSENT COULD REPLICATE ITS EXISTING NETWORKS AND INSTALL ITS NEW NETWORKS BY RELYING ON THIRD PARTY VENDOR DARK FIBER, IT WOULD DO SO**

37. VZ has used a number of tactics to delay, degrade, and most recently, destabilize Conversent's ability to use unbundled dark fiber. With respect to unnecessary delay, VZ requires CLECs to order unbundled dark fiber IOF on a point to point basis, but refuses to assist CLECs in identifying where such dark fiber IOF is routed. This essentially requires Conversent to play a game of fish with VZ. If Conversent does not guess correctly about where the fish is located it must go back to the deck, draw another card, and guess again. It would be much more efficient for all concerned, if VZ, at the outset, would provide Conversent with maps that show how dark fiber is routed across VZ's wire centers.
38. Relatedly, in most states, VZ does not provide CLECs with access to dark fiber that runs through intermediate central offices, even though it does so for CLECs that order lit fiber. To illustrate, if Conversent orders unbundled dark fiber from central office A to central office B but, unbeknownst to Conversent, such fiber runs through intermediate central office C, where Conversent is not collocated, VZ will respond that no dark fiber is available. The effect of this limitation, of course, is to decrease the availability of dark fiber to Conversent, and correspondingly, to delay its entry into the market.

39. With respect to the degradation of Conversent's service, VZ refuses to provide CLECs with dark fiber that meets its own internal standard for transmission quality. In contrast, third party vendors do provide fiber that has minimum transmission standards.
40. VZ has also recently been inserting language in its interconnection agreements that permits it to revoke dark fiber without qualifying language that, before it may do so, it must demonstrate to a state commissioned that such a revocation is necessary to meet its carrier-of-last resort responsibility and that it could not expand its capacity by the addition of electronics. Moreover, the very filing of the Joint Petition destabilizes Conversent's operations and creates uncertainty about its business plan. At the very time that Conversent is attempting to rely on the *UNE Remand Order* in order to expand its customer base in its core footprint and to expand its operations into three new states, the ILECs are trying to force Conversent to disassemble its recently installed SONET networks.
41. Because of problems such as these in obtaining dark fiber from VZ, Conversent would purchase dark fiber from third parties if it were possible to do so. If there was a competitive market for dark fiber interoffice transport (as well as loops), Conversent would be much better served by procuring it from a vendor that really wanted its business instead of from a competitor who wants to put it out of business. Unfortunately, no such competitive market for dark fiber exists.

Respectfully submitted,



David A. Graham

Dated: 6-7-01